



Morbidity and Mortality

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EPIDEMIOLOGIC NOTES AND REPORTS FATAL MALARIA - Mississippi and Virginia

Two fatal cases of malaria due to *Plasmodium falciparum* were recently reported to the NCDC.

Case No. 1: On Sept. 4, 1969, a 22-year-old Vietnam veteran returned to the United States and stopped taking malarial suppressives. On September 14, he had a temperature to 105°F. and a chill. When symptoms recurred on the following day, he was admitted to a local hospital in Mississippi where the presence of malarial parasites suggested pneumonia. He was treated with antibiotics for 3 days, but his condition gradually deteriorated. On September 18, he was flown to a military hospital.

At the time of transfer he was semicomatose, responsive only to deep pain, dehydrated, and oliguric. A diagnosis of malaria was confirmed by peripheral blood smears

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which demonstrated a high percentage of red blood cells parasitized by *P. falciparum* trophozoites. Intravenous quinine and supportive measures which included hemodialysis and assisted ventilation were instituted, but the patient's condition continued to deteriorate, and he expired on September 22. The autopsy revealed petechial hemorrhages of the brain, consistent with cerebral malaria, as

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TABLE I. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	49th WEEK ENDED		MEDIAN 1964 - 1968	CUMULATIVE, FIRST 49 WEEKS		
	December 6, 1969	December 7, 1968		1969	1968	MEDIAN 1964 - 1968
Aseptic meningitis	79	74	52	3,360	4,194	2,834
Brucellosis	5	2	5	218	220	235
Diphtheria	10	3	3	187	230	197
Encephalitis, primary:						
Arthropod-borne & unspecified	23	33	30	1,251	1,363	1,800
Encephalitis, post-infectious	6	8	9	287	448	686
Hepatitis, serum	114	149	770	5,021	4,431	35,647
Hepatitis, infectious	1,049	966	770	45,245	43,142	35,647
Malaria	150	31	14	3,010	2,232	472
Measles (rubeola)	376	272	1,358	23,108	21,804	199,343
Meningococcal infections, total	39	45	47	2,738	2,401	2,619
Civilian	39	43	---	2,524	2,202	---
Military	---	2	---	214	199	---
Mumps	1,696	2,258	---	82,235	142,360	---
Poliomyelitis, total	1	---	1	17	57	58
Paralytic	---	---	---	15	57	57
Rubella (German measles)	547	380	---	53,562	47,371	---
Streptococcal sore throat & scarlet fever	9,886	10,986	9,732	398,794	403,716	396,822
Tetanus	7	1	7	155	154	216
Tularemia	---	---	3	135	166	172
Typhoid fever	9	9	9	318	382	388
Typhus, tick-borne (Rky. Mt. spotted fever)	2	1	---	449	277	260
Rabies in animals	60	59	72	3,136	3,197	4,019

TABLE II. NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	4	Rabies in man	1
Botulism	12	Rubella congenital syndrome	15
Leptospirosis: Fla.-2	83	Trichinosis: Pa.-4	177
Plague	5	Typhus, murine: Ore.-1	48
Psittacosis: Calif.-1	47		

MALARIA — (Continued from front page)

well as extensive bilateral pulmonary hemorrhage and evidence of acute renal insufficiency.

Case No. 2: A 50-year-old man, who had traveled frequently in Africa and Southeast Asia, returned to the United States on Oct. 26, 1969, after a 14-day government sponsored trip to West Africa. On arrival in Africa, he had received 2.5 cc of intramuscular gamma globulin. It is not known whether the patient took malarial chemosuppressives while in Africa. He complained of feeling ill on his return, and on the following day consulted his physician, who prescribed antibiotics. On November 4, he was admitted to a civilian hospital in Virginia with spiking nonperiodic temperature elevations to 105°F. and jaundice. Liver function tests were abnormal, and the tentative diagnosis of infectious hepatitis was made; he was given supportive intravenous fluids. No improvement was noted, and the patient died suddenly on November 10. Pulmonary edema,

bilateral hydrothorax, early hepatic necrosis, and extensive malarial pigmentation were present at autopsy. A review of peripheral blood smears obtained 3 days before death showed *P. falciparum* trophozoites.

(Reported by Durwood L. Blakey, M.D., Director, Division of Preventable Disease Control, Mississippi State Board of Health; Capt. William F. Hallahan, MC USAF, Columbus Air Force Base, Mississippi; Maj. James H. Kneppshield, MC USA, Chief, Renal Dialysis Service, Walter Reed Army Hospital; H. E. Gillespie, M.D., Acting Epidemiologist, Virginia State Department of Health; Malaria Surveillance Unit, the Parasitic Diseases Branch, Epidemiology Program, NCDC; and an EIS Officer.)

Editorial Note:

These cases are the sixth and seventh malaria fatalities reported in 1969.

BOTULISM — California

On Nov. 29, 1969, an elderly couple was admitted to the Los Angeles County-University of Southern California Medical Center hospital with clinical diagnoses of botulism. On November 26, 24 hours after drinking a small amount of syrup from a jar of home-preserved figs, the wife had noted the onset of generalized weakness, dysphagia, and intermittent diplopia. These symptoms persisted for about 48 hours after which she became asymptomatic.

Her husband had eaten 8-10 figs from the jar on November 26. On November 27, he experienced nausea and vomiting followed by weakness, diplopia, and difficulty in swallowing and speaking. On admission on November 29, he had a respiratory rate of 30. Other findings included a markedly dry mouth, complete dysarthria, deviation of the uvula to the left, and paresis of the fourth and sixth cranial nerves bilaterally. On admission, arterial blood gases showed evidence of mild hypoventilation. Progressive signs of hypoxia developed, and he required a tracheotomy and assisted respiration. Four hours after admission, bivalent AB antitoxin was given in a dose of 30,000 units after a negative reaction to a skin test and a 100-unit test dose. One hour after antitoxin administration, the patient became hypotensive and expired despite resuscitative efforts. His wife, though asymptomatic at the time, was given 20,000 units of bivalent AB antitoxin. Neither he nor his wife had been febrile at any time.

Pretreatment sera obtained from both patients were negative for *Clostridium botulinum* toxin by mouse bioassay. A total of five unopened jars of home-preserved figs were found at the home, in addition to one opened jar. All were found negative for toxin. It is not known whether the opened jar was the one implicated in this outbreak.

(Reported by Jan Wilkens, M.D., Attending Physician, Los Angeles County-University of Southern California Medical

Center; Ralph Tetreault, Chief, Food and Drug Section, G. A. Heidebreder, M.D., Health Officer, and Ichiro Kamei, M.D., Chief, Acute Communicable Disease Control Division, and Carl Lawrence, Ph.D., Director, Bureau of Laboratories, Los Angeles County Health Department; and James Chin, M.D., Head, General Epidemiology Section, Bureau of Communicable Diseases, California State Department of Health.)

Editorial Comment:

Although toxin could not be demonstrated in the vehicles tested in this outbreak, the epidemiology and clinical descriptions were compatible with the diagnosis of botulism.

This is the eighth outbreak of botulism reported to NCDC in 1969; to date, 14 cases (five fatal) have been reported.

Since 1899, (1,2) California, which ranks first in the United States in the incidence of botulism, has reported 223 outbreaks with a total of 455 cases (275 fatal). Type A botulinum toxin was the causative organism in 61 outbreaks, type B in five, and type E in one.

Since 1899, (1,2) in addition to this recent outbreak, there have been 12 others associated with figs; nine of these were in California. In these 12 outbreaks, 24 individuals were affected with 13 deaths. In only four outbreaks was the toxin type identified; two were type A and two were type B. The two type A outbreaks were in California.

References:

- (1) Meyer, K. F. and Eddie, B.: Sixty-five Years of Human Botulism in the United States and Canada: Epidemiology and Tabulations of Reported Cases 1899 through 1964. George Williams Hooper Foundation, University of California, San Francisco Medical Center, June 1965.
- (2) National Communicable Disease Center: Botulism in the United States: Review of Cases, 1899-1967 and Handbook for Epidemiologists, Clinicians, and Laboratory Workers.

FOLLOW-UP TULAREMIA - Indiana

Two cases of pneumonia previously reported as probable pulmonary tularemia in two young men in Indianapolis who had handled a squirrel (MMWR, Vol. 18, No. 43) have been confirmed as histoplasmosis. The first patient was hospitalized on Oct. 5, 1969, with fever, shortness of breath, and pulmonary consolidation documented by X-ray. He died 4 days later of fulminant pneumonia resistant to antibiotic treatment. The second patient, a friend of the first, was hospitalized on October 8 with chills, fever, profuse diaphoresis, cough, and severe dyspnea; multinodular infiltrates were seen in both lungs on chest X-ray. Despite initial improvement on tetracycline and streptomycin for the diagnosis of tularemia, the second patient continued to have daily spiking fever and dyspnea and developed erythematous papular skin rash. He died with a tension pneumothorax after 1 month of hospitalization.

Lung tissue from the first patient at autopsy showed histoplasma organisms by methenamine silver stain. Complement fixation (CF) and antibody precipitin tests performed on serum after 5 days of illness were negative. The second patient at autopsy also had histoplasma organisms present in pathologic sections of lung as well as in liver, spleen, and kidney. The organisms fluoresced with fluorescein-tagged antibody against *Histoplasma capsulatum*. In addition, the second patient had a positive CF test, in high titer, to histoplasmosis, which rose slightly during his illness. Between the second and third weeks of illness his serum developed an M-band precipitin (one of five precipitins which may develop from histoplasma antigenic exposure) consistent with an immunologic response to active *H. capsulatum* infection. Yeast organisms (not yet identified) are at present growing from a bone marrow culture taken 1 day prior to the second patient's death.

The tularemia skin test initially read as positive was later re-evaluated and interpreted as negative because a

skin biopsy showed no lymphocytic infiltration characteristic of a positive delayed hypersensitivity reaction.

Review of the two patients' activities in the 3 weeks preceeding their illnesses revealed that they were together only at a common place of work and during the visit to a Vermillion County farm on September 28 where they had shot and handled a squirrel. The farm is located in an area where histoplasmosis is endemic. Absence of clinical illness in 47 of the patients' fellow employees and a negative CF titer for histoplasmosis in the one employee who was ill during the time the patients were hospitalized made airborne infection at work unlikely. Histoplasma skin tests and/or CF titers on sera from three other persons who accompanied the patients on their visit to the farm were positive. One of these persons had lived on this farm and raised chickens until she vacated it 9 months prior to the September 28 visit; she had a high CF titer against histoplasmosis and an M-band precipitin. It is not known whether the patients had entered a chicken coop on the farm during the visit.

Soil samples taken from the chicken coop on the farm and from a probable bird roost near the farm have been cultured for histoplasma organisms. Also soil samples from two other areas where the patients might have been independently exposed to histoplasmosis are being cultured. Until these results are available, the chicken coop is barred to further visits.

(Reported by John Batchelder, M.D., Marvin Melton, M.D., and other members of the medical staff, St. Vincent's Hospital; Robert Costen, M.D., Earl Brown, M.D., and other members of the medical staff, University Heights Hospital, Indianapolis; J. W. Sommerville, M.D., Health Officer, Vermillion County; Hermann Rinne, D.O., Director, Division of Communicable Disease Control, Indiana State Board of Health; and four EIS Officers.)

INTERNATIONAL NOTES
INFLUENZA

Influenza A activity was recently reported to the World Health Organization from several European countries. An outbreak in Spain began in late October 1969 and continued into November when a high incidence of respiratory disease was noted in Madrid and in northern Spain in Lugo and Navarra. All age groups were affected and absentee rates of 10 percent were noted in some schools, administrations, and military units. Outbreaks also occurred during this same time period in Barcelona and its Province. By November 25 over 30 percent of all age groups in this city had been affected. Generally, the disease was clinically mild, but some cases of bronchopneumonia were

reported especially in patients already hospitalized with other diseases. Five isolated virus strains from Madrid and seven from Barcelona were identified as influenza A2/Hong Kong/68.

In France, a large outbreak of influenza-like disease was reported in Toulouse and another in Périgueux in mid-November. In Lyons, a strain of A2/Hong Kong/68 was isolated from a sporadic case in a 9-year-old child, and serologic evidence of infection with virus A was obtained from another sporadic case, an adult who had contact with relatives coming from Spain.

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
DECEMBER 6, 1969 AND DECEMBER 7, 1968 (49th WEEK)

AREA	ASEPTIC MENIN- GITIS	BRUCEL- LOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			MALARIA	
				Primary including unsp. cases		Post- Infectious	Serum	Infectious			
				1969	1969	1969	1969	1968	1969	1969	1968
UNITED STATES...	79	5	10	23	33	6	114	1,049	966	150	3,010
NEW ENGLAND.....	4	-	-	1	-	-	5	144	68	1	94
Maine.....	-	-	-	-	-	-	-	17	6	-	7
New Hampshire.....	-	-	-	-	-	-	-	3	4	-	2
Vermont.....	-	-	-	-	-	-	-	6	2	-	-
Massachusetts.....	1	-	-	-	-	-	1	91	29	1	59
Rhode Island.....	3	-	-	-	-	-	1	13	16	-	10
Connecticut.....	-	-	-	1	-	-	3	14	11	-	16
MIDDLE ATLANTIC.....	18	-	-	4	3	1	53	182	126	30	365
New York City.....	8	-	-	2	1	-	34	42	45	3	25
New York, up-State.....	-	-	-	1	1	-	1	23	15	5	80
New Jersey.....	5	-	-	1	-	-	5	49	42	21	151
Pennsylvania.....	5	-	-	-	1	1	13	68	24	1	109
EAST NORTH CENTRAL...	9	-	-	6	9	-	20	169	154	23	314
Ohio.....	3	-	-	1	5	-	4	36	32	1	29
Indiana.....	5	-	-	3	1	-	1	34	15	-	26
Illinois.....	-	-	-	-	-	-	3	20	45	19	192
Michigan.....	1	-	-	2	3	-	12	74	56	3	66
Wisconsin.....	-	-	-	-	-	-	-	5	6	-	1
WEST NORTH CENTRAL...	6	2	2	3	3	-	2	35	44	5	215
Minnesota.....	5	-	-	-	1	-	2	8	19	-	14
Iowa.*.....	1	2	-	1	2	-	-	6	10	-	25
Missouri.....	-	-	-	-	-	-	-	13	6	-	45
North Dakota.....	-	-	-	-	-	-	-	1	1	-	4
South Dakota.....	-	-	2	-	-	-	-	2	-	-	1
Nebraska.....	-	-	-	-	-	-	-	1	1	-	4
Kansas.....	-	-	-	2	-	-	-	4	7	5	122
SOUTH ATLANTIC.....	4	2	5	5	3	2	2	98	112	40	771
Delaware.....	-	-	-	-	-	-	-	5	2	-	5
Maryland.....	-	-	-	-	-	-	-	11	15	-	33
Dist. of Columbia..	-	-	-	-	-	-	-	1	1	-	2
Virginia.....	-	2	-	2	2	-	1	9	5	-	27
West Virginia.....	-	-	-	-	-	-	-	5	7	1	4
North Carolina.....	1	-	-	1	-	-	-	22	13	26	311
South Carolina.....	-	-	-	-	-	-	-	2	7	2	64
Georgia.....	-	-	-	-	-	-	-	16	12	10	274
Florida.....	3	-	5	2	1	2	1	27	50	1	51
EAST SOUTH CENTRAL...	7	-	1	1	-	-	-	75	75	-	158
Kentucky.....	-	-	-	-	-	-	-	41	31	-	129
Tennessee.....	6	-	-	1	-	-	-	26	29	-	-
Alabama.*.....	1	-	-	-	-	-	-	5	4	-	25
Mississippi.....	-	-	1	-	-	-	-	3	11	-	4
WEST SOUTH CENTRAL...	4	-	1	1	3	-	6	75	72	27	263
Arkansas.....	-	-	-	-	-	-	-	1	6	-	13
Louisiana.*.....	1	-	1	1	3	-	2	6	14	-	46
Oklahoma.*.....	1	-	-	-	-	-	-	12	1	2	77
Texas.....	2	-	-	-	-	-	4	56	51	25	127
MOUNTAIN.....	1	-	-	-	2	-	-	56	42	1	138
Montana.....	-	-	-	-	-	-	-	2	1	-	3
Idaho.....	-	-	-	-	-	-	-	-	4	-	5
Wyoming.....	-	-	-	-	-	-	-	5	1	-	-
Colorado.....	-	-	-	-	2	-	-	11	11	-	112
New Mexico.....	1	-	-	-	-	-	-	5	5	-	9
Arizona.*.....	-	-	-	-	-	-	-	18	9	-	1
Utah.....	-	-	-	-	-	-	-	8	5	-	1
Nevada.....	-	-	-	-	-	-	-	7	6	1	7
PACIFIC.....	26	1	1	2	10	3	26	215	273	23	692
Washington.....	-	-	-	-	1	-	-	11	19	-	7
Oregon.....	11	-	-	-	-	-	3	19	27	2	18
California.....	15	1	1	2	8	3	23	179	218	10	532
Alaska.....	-	-	-	-	-	-	-	1	3	1	4
Hawaii.....	-	-	-	-	1	-	-	5	6	10	131
Puerto Rico.....	-	-	-	-	-	-	1	15	38	-	4

*Delayed reports: Aseptic meningitis: Okla. 2, Ariz. 1

Diphtheria: La. delete 1

Encephalitis, primary: Okla. 1

Hepatitis, serum: Iowa 1

Hepatitis, infectious: Ala. 17

Malaria: Iowa 2

TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
DECEMBER 6, 1969 AND DECEMBER 7, 1968 (49th WEEK) - CONTINUED

AREA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			MUMPS	POLIOMYELITIS			RUBELLA	
	1969	Cumulative		1969	Cumulative			1969	Total	Paralytic		
		1969	1968		1969	1968			1969	1969		Cum. 1969
UNITED STATES...	376	23,108	21,804	39	2,738	2,401	1,696	1	—	15	547	
NEW ENGLAND.....	16	1,187	1,256	—	107	139	246	—	—	2	30	
Maine.....	—	9	38	—	8	6	64	—	—	1	—	
New Hampshire.....	—	244	142	—	4	8	19	—	—	—	4	
Vermont.....	—	3	3	—	—	1	5	—	—	—	—	
Massachusetts.....	6	249	380	—	41	74	66	—	—	—	16	
Rhode Island.....	—	27	39	—	14	9	24	—	—	—	2	
Connecticut.....	10	655	654	—	40	41	68	—	—	1	8	
MIDDLE ATLANTIC.....	61	7,862	4,590	5	455	421	115	—	—	2	32	
New York City.....	12	5,011	2,362	1	87	86	70	—	—	—	13	
New York, Up-State.....	4	620	1,356	1	89	72	NN	—	—	1	2	
New Jersey.....	26	1,061	697	2	176	143	45	—	—	—	2	
Pennsylvania.....	19	1,170	175	1	103	120	NN	—	—	1	15	
EAST NORTH CENTRAL...	54	2,738	4,124	4	373	301	508	—	—	1	128	
Ohio.....	19	511	325	—	136	82	43	—	—	—	7	
Indiana.....	—	478	719	2	50	43	60	—	—	—	34	
Illinois.....	22	730	1,419	—	52	67	96	—	—	1	10	
Michigan.....	5	365	322	2	108	88	116	—	—	—	50	
Wisconsin.....	8	654	1,339	—	27	21	193	—	—	—	27	
WEST NORTH CENTRAL...	12	972	447	2	137	128	30	—	—	1	21	
Minnesota.....	1	10	19	—	29	29	—	—	—	—	4	
Iowa.*.....	—	338	144	—	21	11	19	—	—	—	10	
Missouri.....	—	31	81	—	56	41	2	—	—	—	—	
North Dakota.....	7	51	138	—	2	4	6	—	—	—	1	
South Dakota.....	—	3	4	—	1	5	NN	—	—	—	—	
Nebraska.....	3	530	51	1	11	9	3	—	—	—	6	
Kansas.....	1	9	10	1	17	29	—	—	—	1	—	
SOUTH ATLANTIC.....	112	2,859	1,748	6	477	482	245	—	—	1	67	
Delaware.....	29	471	18	—	17	12	5	—	—	—	1	
Maryland.....	5	93	103	—	41	41	10	—	—	—	3	
Dist. of Columbia..	3	35	6	—	9	17	6	—	—	—	1	
Virginia.....	22	950	408	—	57	47	82	—	—	—	3	
West Virginia.....	3	224	315	—	24	13	102	—	—	—	8	
North Carolina.....	4	346	320	1	88	96	NN	—	—	—	—	
South Carolina.....	—	134	25	4	63	61	1	—	—	—	—	
Georgia.....	—	2	4	—	77	93	—	—	—	—	—	
Florida.....	46	604	549	1	101	102	39	—	—	1	51	
EAST SOUTH CENTRAL...	5	126	503	6	178	215	106	—	—	1	35	
Kentucky.*.....	3	70	103	3	58	95	25	—	—	—	3	
Tennessee.....	1	21	64	3	74	68	74	—	—	—	30	
Alabama.....	1	11	95	—	27	27	7	—	—	1	2	
Mississippi.....	—	24	241	—	19	25	—	—	—	—	—	
WEST SOUTH CENTRAL...	60	5,058	5,223	6	362	348	115	—	—	6	82	
Arkansas.....	—	16	2	1	33	21	—	—	—	—	—	
Louisiana.....	—	125	25	—	98	97	—	—	—	—	—	
Oklahoma.....	—	142	129	—	36	55	34	—	—	—	15	
Texas.....	60	4,775	5,067	5	195	175	81	—	—	6	67	
MOUNTAIN.....	40	1,116	1,074	1	59	45	68	1	—	—	15	
Montana.....	16	108	58	—	8	6	10	1	—	—	—	
Idaho.....	—	90	21	—	13	12	11	—	—	—	3	
Wyoming.....	—	—	55	—	—	3	—	—	—	—	—	
Colorado.....	—	141	523	1	13	14	8	—	—	—	7	
New Mexico.....	5	284	154	—	8	1	16	—	—	—	1	
Arizona.....	19	481	234	—	10	5	23	—	—	—	4	
Utah.....	—	11	21	—	5	1	—	—	—	—	—	
Nevada.....	—	1	8	—	2	3	—	—	—	—	—	
PACIFIC.....	16	1,190	2,839	9	590	322	263	—	—	1	137	
Washington.....	—	67	596	—	57	51	50	—	—	—	32	
Oregon.....	—	200	585	1	21	25	14	—	—	—	14	
California.....	14	863	1,612	8	491	228	162	—	—	1	28	
Alaska.....	1	14	11	—	11	4	28	—	—	—	53	
Hawaii.....	1	46	35	—	10	14	9	—	—	—	10	
Puerto Rico.....	48	1,985	489	—	19	20	21	—	—	—	1	

*Delayed reports: Measles: Ky. delete 1, Iowa 1

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TABLE III. CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED
DECEMBER 6, 1969 AND DECEMBER 7, 1968 (49th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID FEVER		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969	1969	Cum. 1969
UNITED STATES...	9,886	7	155	-	135	9	318	2	449	60	3,136
NEW ENGLAND.....	1,437	-	1	-	16	-	16	-	1	-	54
Maine.....	13	-	-	-	-	-	1	-	-	-	6
New Hampshire.....	-	-	-	-	-	-	-	-	-	-	5
Vermont.....	4	-	-	-	16	-	-	-	-	-	32
Massachusetts.....	257	-	1	-	-	-	8	-	1	-	3
Rhode Island.....	138	-	-	-	-	-	1	-	-	-	-
Connecticut.....	1,025	-	-	-	-	-	6	-	-	-	8
MIDDLE ATLANTIC.....	246	3	22	-	5	-	31	-	47	7	234
New York City.....	15	3	14	-	1	-	17	-	-	-	-
New York, Up-State.	145	-	3	-	4	-	6	-	7	7	220
New Jersey.....	NN	-	3	-	-	-	3	-	15	-	-
Pennsylvania.....	86	-	2	-	-	-	5	-	25	-	14
EAST NORTH CENTRAL...	955	-	19	-	17	1	36	-	3	3	228
Ohio.....	188	-	4	-	-	1	13	-	-	-	74
Indiana.....	161	-	-	-	5	-	-	-	-	2	56
Illinois.....	165	-	10	-	5	-	16	-	3	1	40
Michigan.....	313	-	5	-	-	-	6	-	-	-	9
Wisconsin.....	128	-	-	-	7	-	1	-	-	-	49
WEST NORTH CENTRAL...	515	1	13	-	14	-	10	-	8	19	597
Minnesota.....	10	1	5	-	-	-	4	-	-	7	161
Iowa.....	180	-	-	-	-	-	1	-	7	7	98
Missouri.....	14	-	4	-	10	-	3	-	-	5	142
North Dakota.....	89	-	-	-	-	-	-	-	-	-	71
South Dakota.....	30	-	-	-	-	-	-	-	1	-	43
Nebraska.....	163	-	-	-	1	-	1	-	-	-	14
Kansas.....	29	-	4	-	3	-	1	-	-	-	68
SOUTH ATLANTIC.....	1,016	-	28	-	23	-	50	1	253	15	743
Delaware.....	11	-	-	-	1	-	2	-	3	-	-
Maryland.....	155	-	1	-	-	-	4	-	48	-	3
Dist. of Columbia..	6	-	2	-	-	-	3	-	-	-	-
Virginia.....	370	-	1	-	4	-	1	-	81	9	368
West Virginia.....	177	-	1	-	2	-	2	-	5	-	106
North Carolina.....	NN	-	3	-	6	-	11	1	67	-	5
South Carolina.....	104	-	1	-	2	-	1	-	32	-	-
Georgia.....	7	-	7	-	4	-	11	-	16	4	93
Florida.....	186	-	12	-	4	-	15	-	1	2	168
EAST SOUTH CENTRAL...	1,783	1	23	-	14	1	47	-	65	2	388
Kentucky.....	262	-	7	-	-	1	9	-	13	1	199
Tennessee.....	1,195	-	4	-	13	-	20	-	43	-	130
Alabama.....	152	1	7	-	-	-	4	-	6	1	53
Mississippi.....	174	-	5	-	1	-	14	-	3	-	6
WEST SOUTH CENTRAL...	1,036	2	30	-	23	1	34	1	50	8	455
Arkansas.....	41	-	2	-	5	1	14	-	7	3	33
Louisiana.....	6	-	7	-	4	-	4	-	-	-	39
Oklahoma.....	70	-	1	-	8	-	-	1	31	-	68
Texas.....	919	2	20	-	6	-	16	-	12	5	315
MOUNTAIN.....	2,128	-	7	-	18	2	32	-	17	4	122
Montana.....	42	-	1	-	-	-	3	-	-	-	-
Idaho.....	197	-	-	-	-	-	4	-	6	-	-
Wyoming.....	274	-	-	-	4	-	5	-	-	-	55
Colorado.....	1,135	-	2	-	-	-	3	-	9	-	3
New Mexico.....	303	-	-	-	1	2	10	-	-	4	21
Arizona.....	98	-	4	-	-	-	6	-	-	-	22
Utah.....	79	-	-	-	13	-	-	-	2	-	5
Nevada.....	-	-	-	-	-	-	1	-	-	-	16
PACIFIC.....	770	-	12	-	5	4	62	-	5	2	315
Washington.....	525	-	1	-	2	-	2	-	3	-	4
Oregon.....	163	-	-	-	1	-	6	-	-	-	4
California.....	---	-	11	-	2	4	48	-	2	2	307
Alaska.....	40	-	-	-	-	-	-	-	-	-	-
Hawaii.....	42	-	-	-	-	-	6	-	-	-	-
Puerto Rico.....	4	1	13	-	-	-	7	-	-	-	29

*Delayed reports: Tetanus: Ariz. 1

Morbidity and Mortality Weekly Report

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Week No.

TABLE IV. DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED DECEMBER 6, 1969

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(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes	Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over				All Ages	65 years and over		
NEW ENGLAND:	896	542	62	36	SOUTH ATLANTIC:	1,447	745	69	95
Boston, Mass.-----	271	148	20	6	Atlanta, Ga.-----	137	65	6	6
Bridgeport, Conn.-----	42	28	4	2	Baltimore, Md.-----	321	175	9	16
Cambridge, Mass.-----	36	26	9	1	Charlotte, N. C.-----	73	30	3	5
Fall River, Mass.-----	33	22	—	1	Jacksonville, Fla.-----	55	24	1	2
Hartford, Conn.-----	91	46	2	5	Miami, Fla.-----	121	59	6	8
Lowell, Mass.-----	31	17	4	3	Norfolk, Va.-----	62	32	6	2
Lynn, Mass.-----	28	22	—	1	Richmond, Va.-----	95	49	6	5
New Bedford, Mass.-----	28	19	1	3	Savannah, Ga.-----	40	23	1	2
New Haven, Conn.-----	68	41	4	5	St. Petersburg, Fla.---	103	77	3	1
Providence, R. I.-----	76	47	3	3	Tampa, Fla.-----	91	54	11	9
Somerville, Mass.-----	19	13	5	1	Washington, D. C.-----	303	136	15	34
Springfield, Mass.-----	57	32	2	1	Wilmington, Del.-----	46	21	2	5
Waterbury, Conn.-----	43	31	—	—					
Worcester, Mass.-----	73	50	8	4	EAST SOUTH CENTRAL:	781	427	35	33
MIDDLE ATLANTIC:	3,760	2,203	159	173	Birmingham, Ala.-----	111	49	2	5
Albany, N. Y.-----	67	41	1	4	Chattanooga, Tenn.-----	73	44	4	1
Allentown, Pa.-----	52	29	7	2	Knoxville, Tenn.-----	48	35	4	1
Buffalo, N. Y.-----	177	123	10	5	Louisville, Ky.-----	149	87	14	5
Camden, N. J.-----	46	24	3	1	Memphis, Tenn.-----	140	69	3	8
Elizabeth, N. J.-----	54	37	4	2	Mobile, Ala.-----	90	48	3	5
Erie, Pa.-----	47	34	2	1	Montgomery, Ala.-----	64	36	5	4
Jersey City, N. J.-----	70	47	8	2	Nashville, Tenn.-----	106	59	—	4
Newark, N. J.-----	112	47	6	21	WEST SOUTH CENTRAL:	1,458	733	50	109
New York City, N. Y.---	1,872	1,094	73	91	Austin, Tex.-----	45	21	6	2
Paterson, N. J.-----	53	32	1	4	Baton Rouge, La.-----	69	36	1	1
Philadelphia, Pa.-----	498	273	3	21	Corpus Christi, Tex.---	26	16	2	2
Pittsburgh, Pa.-----	256	143	19	5	Dallas, Tex.-----	201	87	5	11
Reading, Pa.-----	58	39	5	2	El Paso, Tex.-----	57	34	5	8
Rochester, N. Y.-----	125	74	5	7	Fort Worth, Tex.-----	93	51	4	5
Schenectady, N. Y.-----	21	13	1	1	Houston, Tex.-----	298	142	3	32
Scranton, Pa.-----	39	24	1	1	Little Rock, Ark.-----	68	34	3	5
Syracuse, N. Y.-----	88	61	2	—	New Orleans, La.-----	181	77	3	11
Trenton, N. J.-----	56	27	1	2	Oklahoma City, Okla.---	118	62	2	9
Utica, N. Y.-----	33	19	3	—	San Antonio, Tex.-----	175	93	2	19
Yonkers, N. Y.-----	36	22	4	1	Shreveport, La.-----	48	28	5	1
EAST NORTH CENTRAL:	2,955	1,700	91	160	Tulsa, Okla.-----	79	52	9	3
Akron, Ohio-----	75	50	—	5	MOUNTAIN:	572	349	29	30
Canton, Ohio-----	46	29	2	2	Albuquerque, N. Mex.---	63	37	10	4
Chicago, Ill.-----	836	447	21	56	Colorado Springs, Colo.---	35	21	5	6
Cincinnati, Ohio-----	192	118	6	7	Denver, Colo.-----	144	88	4	3
Cleveland, Ohio-----	222	118	5	16	Ogden, Utah-----	20	15	3	—
Columbus, Ohio-----	153	73	2	7	Phoenix, Ariz.-----	143	89	1	8
Dayton, Ohio-----	107	55	4	6	Pueblo, Colo.-----	22	14	—	—
Detroit, Mich.-----	399	226	9	25	Salt Lake City, Utah---	70	36	3	7
Evansville, Ind.-----	23	15	1	—	Tucson, Ariz.-----	75	49	3	2
Flint, Mich.-----	63	35	3	6	PACIFIC:	1,815	1,085	35	72
Fort Wayne, Ind.-----	51	30	3	2	Berkeley, Calif.-----	13	9	1	1
Gary, Ind.-----	14	9	—	—	Fresno, Calif.-----	50	24	1	5
Grand Rapids, Mich.---	66	51	6	2	Glendale, Calif.-----	41	28	—	1
Indianapolis, Ind.-----	189	122	6	5	Honolulu, Hawaii-----	55	31	2	4
Madison, Wis.-----	51	29	7	5	Long Beach, Calif.-----	114	63	1	4
Milwaukee, Wis.-----	170	112	3	4	Los Angeles, Calif.-----	640	371	12	31
Peoria, Ill.-----	42	27	—	1	Oakland, Calif.-----	83	52	3	3
Rockford, Ill.-----	55	30	6	6	Pasadena, Calif.-----	33	24	1	1
South Bend, Ind.-----	19	10	3	1	Portland, Oreg.-----	113	70	2	4
Toledo, Ohio-----	111	68	4	3	Sacramento, Calif.-----	69	37	1	2
Youngstown, Ohio-----	71	46	—	1	San Diego, Calif.-----	93	57	2	5
WEST NORTH CENTRAL:	995	631	35	50	San Francisco, Calif.---	203	116	4	3
Des Moines, Iowa-----	53	29	—	2	San Jose, Calif.-----	57	39	—	2
Duluth, Minn.-----	42	29	6	2	Seattle, Wash.-----	154	92	1	5
Kansas City, Kans.-----	44	28	5	6	Spokane, Wash.-----	43	31	2	—
Kansas City, Mo.-----	159	100	2	4	Tacoma, Wash.-----	54	41	2	1
Lincoln, Nebr.-----	27	18	1	1	Total	14,679	8,415	565	758
Minneapolis, Minn.-----	130	91	1	5	Expected Number	13,012	7,572	470	541
Omaha, Nebr.-----	101	65	5	8	Cumulative Total (includes reported corrections for previous weeks)	634,507	362,784	28,192	30,178
St. Louis, Mo.-----	267	163	4	13					
St. Paul, Minn.-----	102	63	4	6					
Wichita, Kans.-----	70	45	7	3					
Las Vegas, Nev.*	23	13	3	1					

*Mortality data are being collected from Las Vegas, Nev., for possible inclusion in this table, however, for statistical reasons, these data will be listed only and not included in the total, expected number, or cumulative total, until 5 years of data are collected.

INFLUENZA - (Continued from page 427)

In Denmark, two cases due to influenza A were diagnosed serologically; one was in a family contact of a patient with influenza-like illness who had recently been in Spain.

In Yugoslavia in September 1969, four cases of influenza A2 Hong Kong 68 were diagnosed in Zagreb in an airport worker and his family. By early November an outbreak of influenza-like illness was occurring in this city. Two strains of influenza virus A2 Hong Kong '68 were isolated.

In the United Kingdom, three cases of influenza A2 were confirmed in adults; two were in Cambridge where many cases of influenza-like illness were occurring and one was isolated from a nurse in London.

In addition to the European outbreaks, an outbreak of influenza-like illness was reported in a prison in Uganda; about 100 cases occurred. Influenza virus A was isolated from two patients and serologic evidence of infection was obtained from others.

(Compiled from the World Health Organization Weekly Epidemiological Record, 44(46, 48, and 49):628, 650, and 653, Nov. 14 and 28 and Dec. 5, 1969.)

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DIRECTOR, EPIDEMIOLOGY PROGRAM

EDITOR
MANAGING EDITOR

DAVID J. SENCER, M.O.
A. O. LANGMUIR, M.O.

MICHAEL B. GREGG, M.O.
PRISCILLA B. HOLMAN

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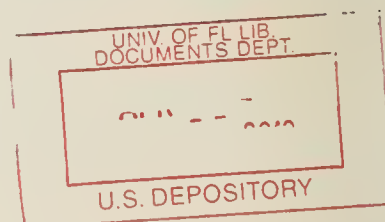
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ATTN: THE EDITOR

MORBIDITY AND MORTALITY WEEKLY REPORT
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCOC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES AT CLOSE OF BUSINESS ON FRIDAY; COMPILED DATA ON A NATIONAL BASIS ARE OFFICIALLY RELEASED TO THE PUBLIC ON THE SUCCEEDING FRIDAY.

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